FOSTER / 6056/6

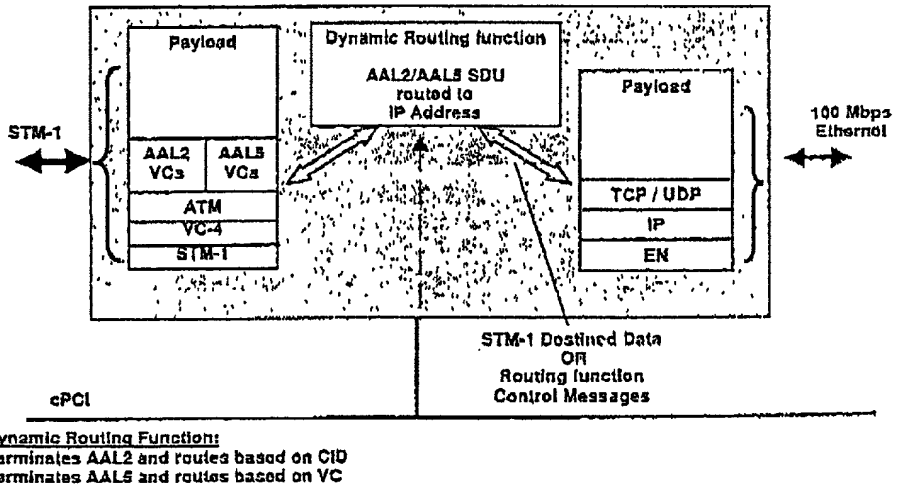

FIGURE 2

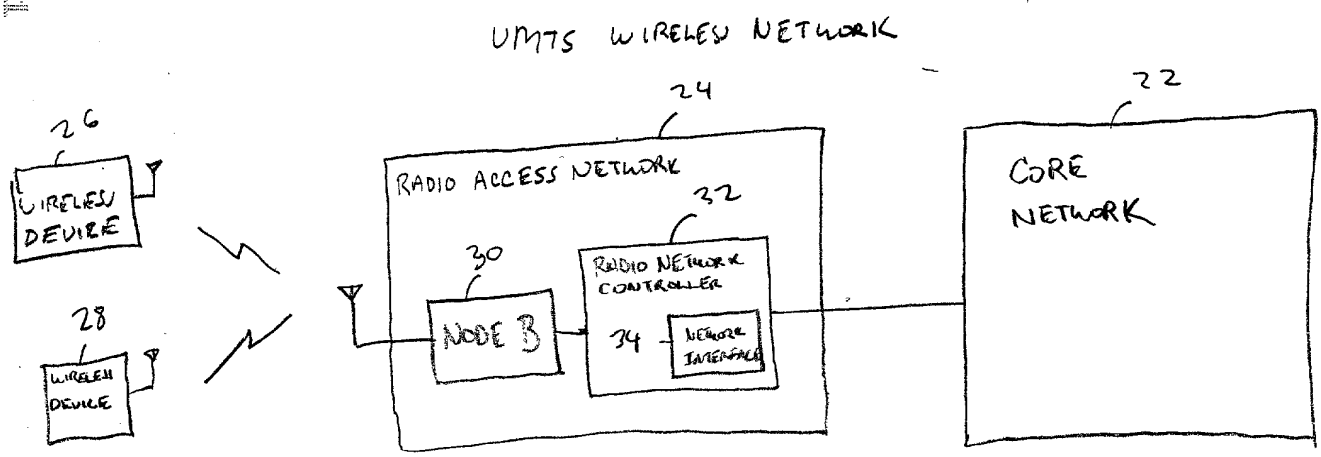

FIGURE 1

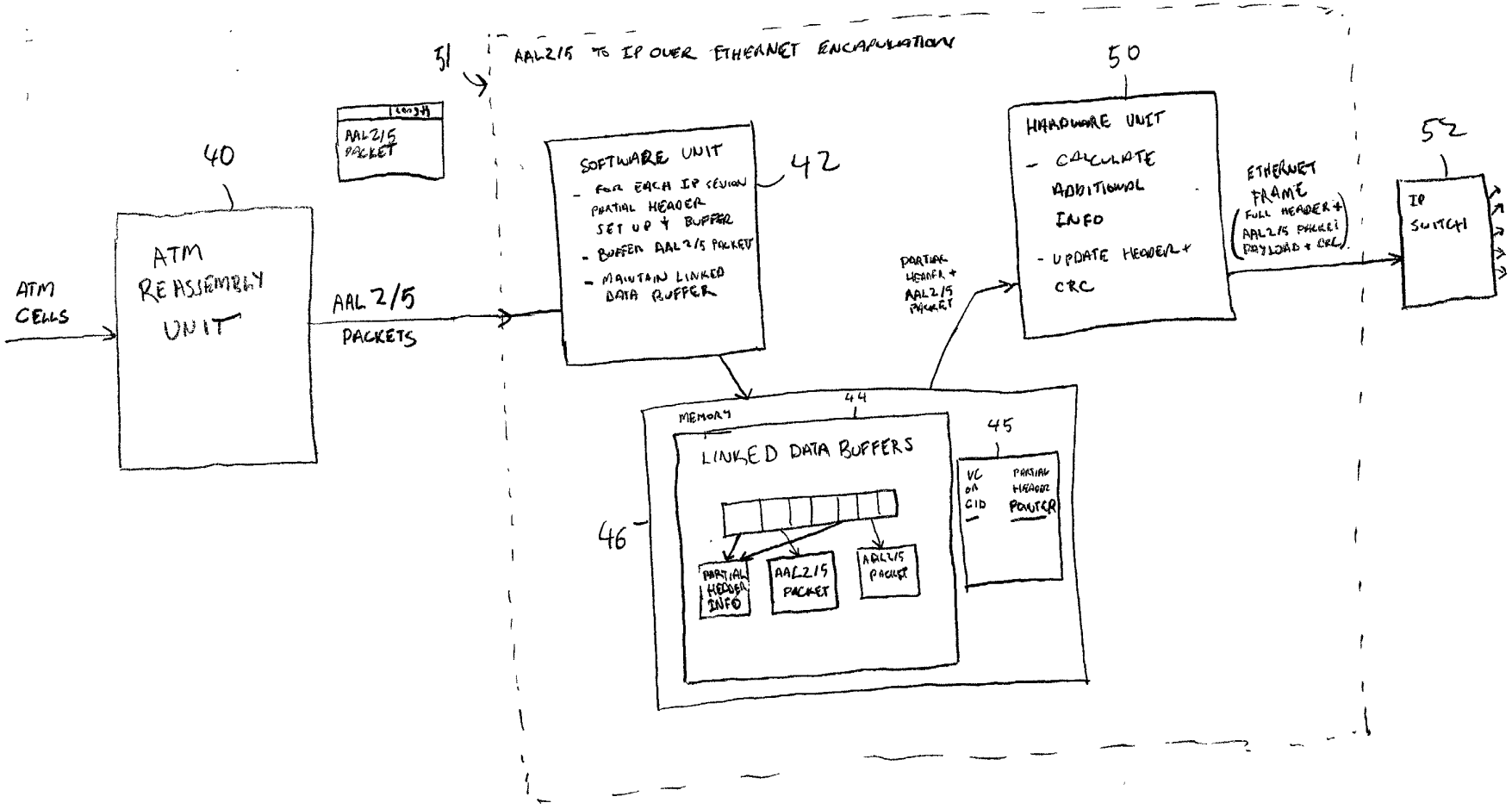
AAL2/5 TO IP OVER ETHERNET ENCAPSULATION
51
50
52
40
42
44
45
46
ATM CELLS
ATM REASSEMBLY UNIT
AAL 2/5 PACKETS
AAL2/5 PACKET
SOFTWARE UNIT
- FOR EACH IP SESSION PARTIAL HEADER SET UP & BUFFER
- BUFFER AAL2/5 PACKET
- MAINTAIN LINKED DATA BUFFER
PARTIAL HEADER + AAL2/5 PACKET
HARDWARE UNIT
- CALCULATE ADDITIONAL INFO
- UPDATE HEADER + CRC
ETHERNET FRAME
(FULL HEADER + AAL2/5 PACKET PAYLOAD + CRC)
IP SWITCH
MEMORY
LINKED DATA BUFFERS
PARTIAL HEADER INFO
AAL2/5 PACKET
AAL2/5 PACKET
VC OR CID
PARTIAL HEADER POINTER

FIGURE 3

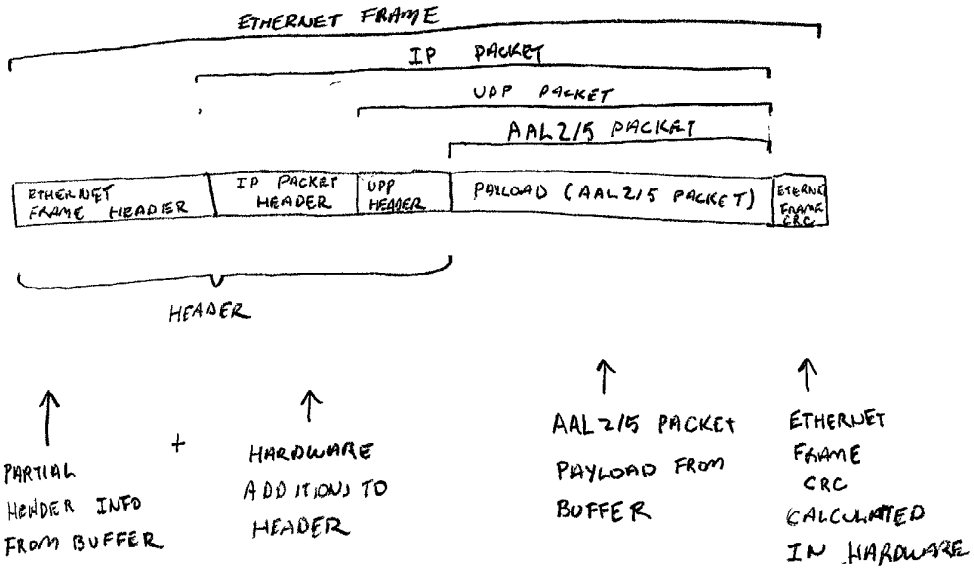
ETHERNET FRAME
IP PACKET
UDP PACKET
AAL2/5 PACKET
ETHERNET FRAME HEADER
IP PACKET HEADER
UDP HEADER
PAYLOAD (AAL2/5 PACKET)
ETHERNET FRAME CRC
HEADER
PARTIAL HEADER INFO FROM BUFFER
+
HARDWARE ADDITIONS TO HEADER
AAL2/5 PACKET PAYLOAD FROM BUFFER
ETHERNET FRAME CRC CALCULATED IN HARDWARE

FIGURE 4

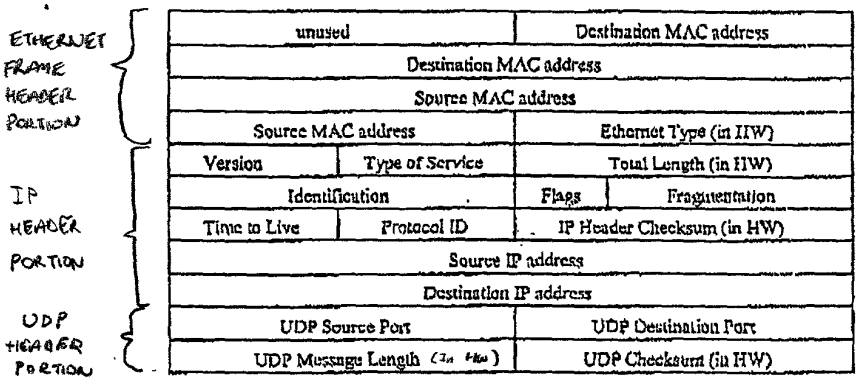

FIGURE 5

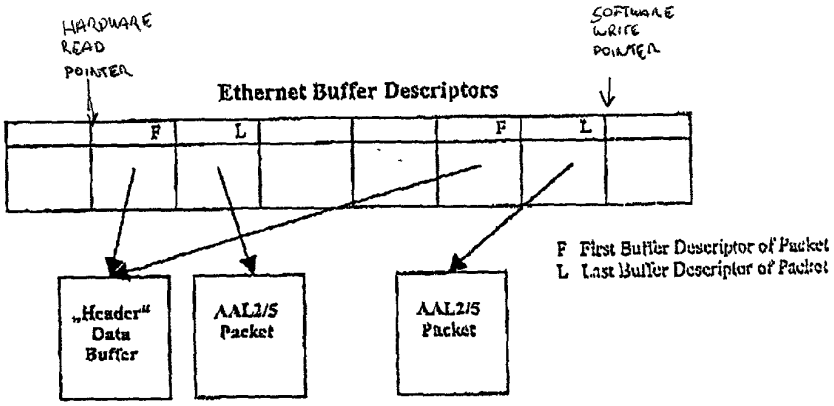

FIGURE 6

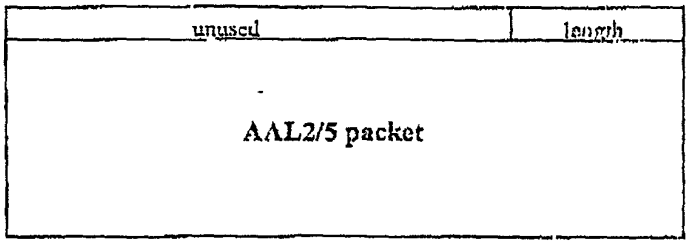

FIGURE 7

05/5955.050

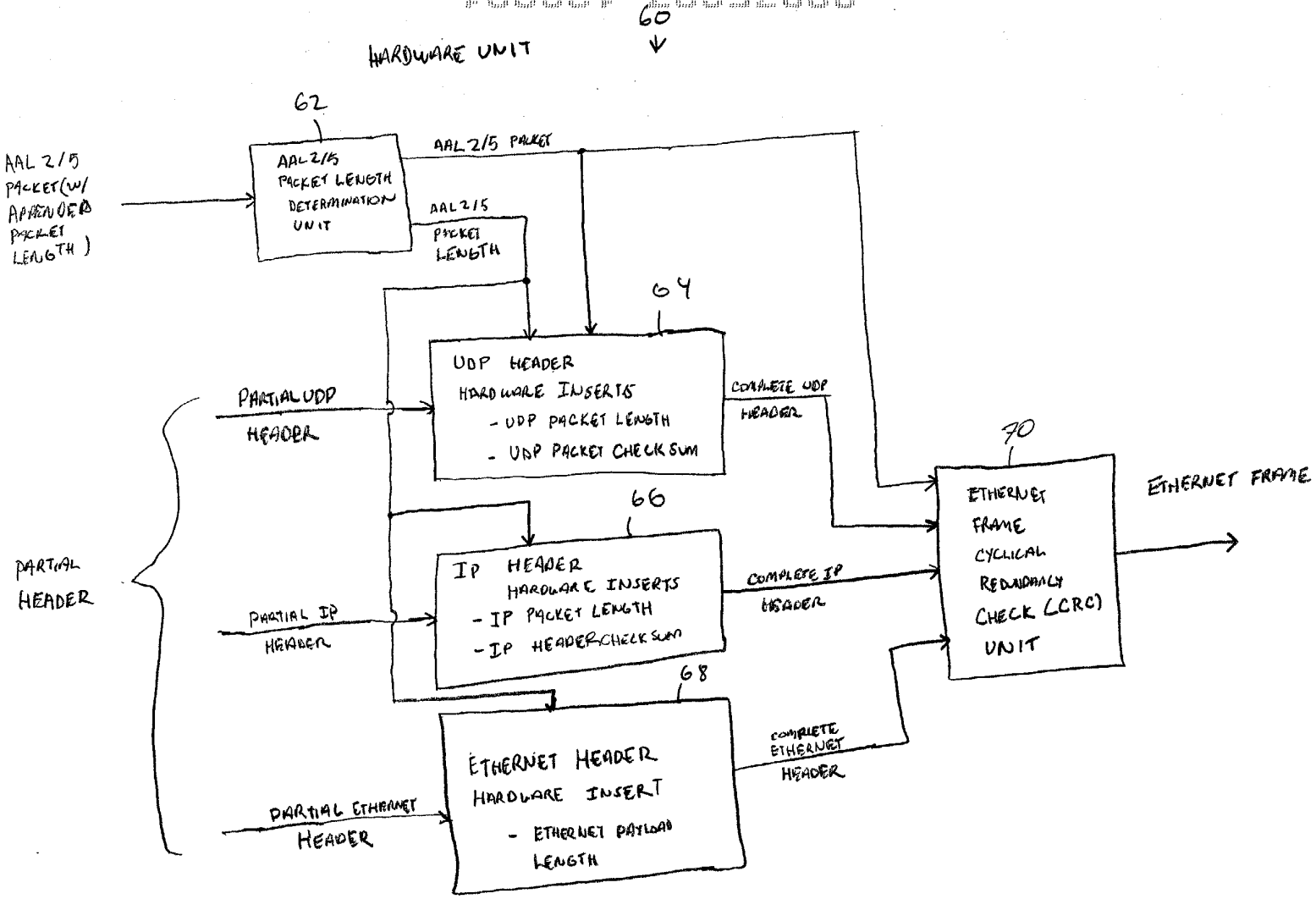
60
HARDWARE UNIT
62
AAL 2/5 PACKET (W/ APPENDED PACKET LENGTH)
AAL2/5 PACKET LENGTH DETERMINATION UNIT
AAL2/5 PACKET
AAL2/5 PACKET LENGTH
64
UDP HEADER HARDWARE INSERTS
- UDP PACKET LENGTH
- UDP PACKET CHECKSUM
PARTIAL UDP HEADER
COMPLETE UDP HEADER
66
IP HEADER HARDWARE INSERTS
- IP PACKET LENGTH
- IP HEADER CHECKSUM
PARTIAL HEADER
PARTIAL IP HEADER
COMPLETE IP HEADER
68
ETHERNET HEADER HARDWARE INSERT
- ETHERNET PAYLOAD LENGTH
PARTIAL ETHERNET HEADER
COMPLETE ETHERNET HEADER
70
ETHERNET FRAME CYCLICAL REDUNDANCY CHECK (CRC) UNIT
ETHERNET FRAME

FIGURE 8

TOSOOT "2805/2660

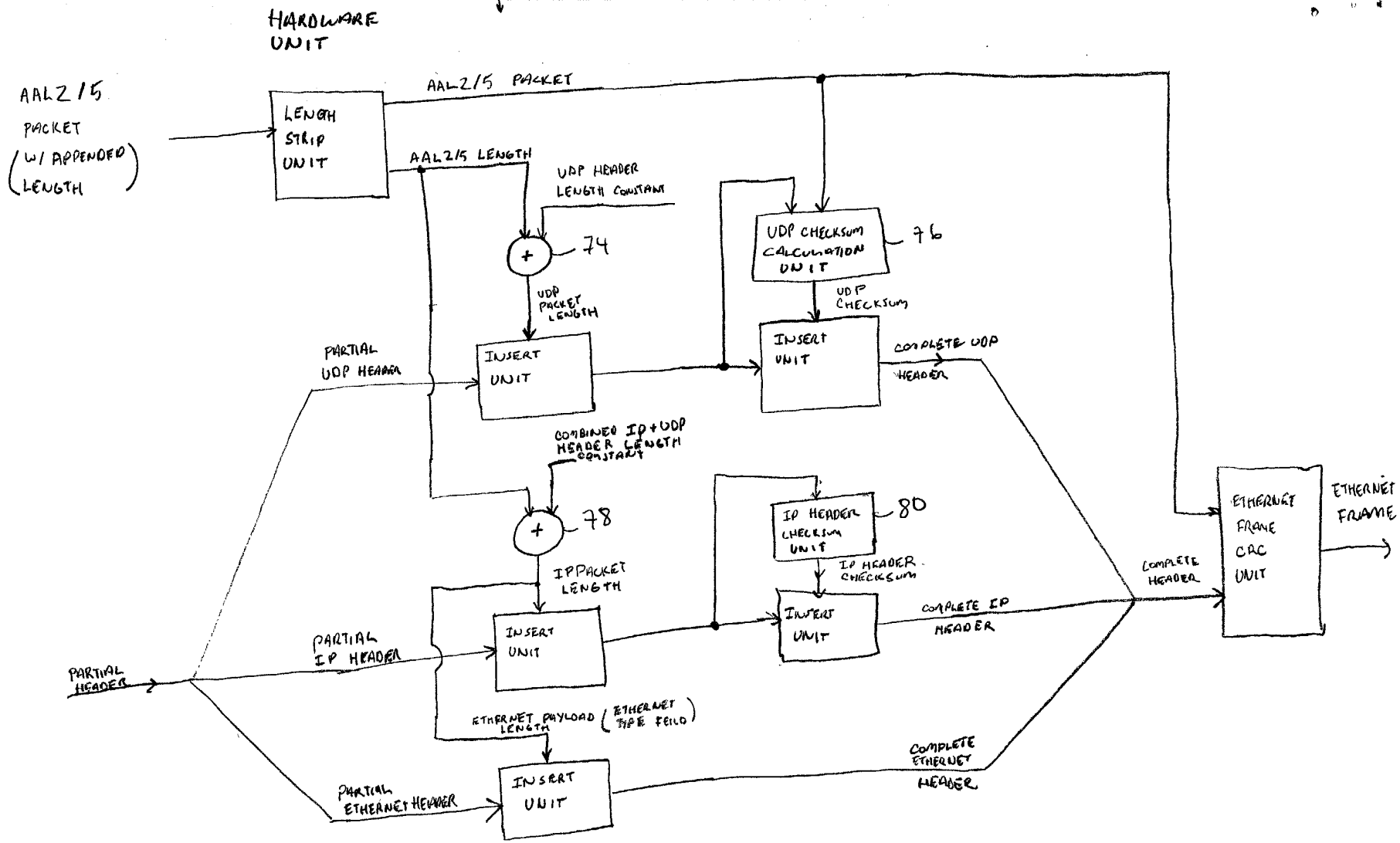

FIGURE 9